

REMARKS

Reconsideration of the *Final Rejection* of August 2, 2004 is respectfully requested.

In the *Final Rejection* of August 2, 2004, the rejection of Claims 1-21 and 23-26 as obvious over *Van Handel et al.* '500 in view of *Gospe et al.* '730 was repeated.

The Examiner further noted the following web page:

[http://www.Watlow.com/
literature/casehistorydetail.cfm?
id = 175.](http://www.Watlow.com/literature/casehistorydetail.cfm?id=175)

A copy of that page, which does not remotely suggest improved durability in a pressware die set, is attached as Exhibit 1 hereto. An extruder does not reciprocate and thus the page provides no guidance as to the subject matter claimed in this case.

A related page, Exhibit 2 hereto, underscores the fact that a large number of heater options are available , for example, band heaters, cable heaters, cartridge heaters, ceramic fiber heaters, circulation heaters, custom heaters, flexible heaters, multicell heaters, multicoil heaters, polymer heaters, radiant heaters, strip heaters, thick film heaters and tubular heaters to name some of the options. There is no teaching in any reference of record which teaches that cast-in heaters would be expected to exhibit increased durability in a pressware die set. Merely showing an option is available is only, at best, an invitation to experiment and falls far short of making out a *prima facie* use of obviousness. In this regard, Applicant notes the following cases:

Application of *Tore V. Saether*; 492 F.2d 849

An elastomeric platform was made by the appellant by selecting four specific physical characteristics. The physical characteristics were in the specification and the random correlation of the physical characteristics was considered a "further indication of unobviousness" by the court. In sum, the court concluded that the selection of the physical

characteristics was unobvious notwithstanding that the ingredients to make the component parts of the platform were known.

Application of Antonie 559 F.2d 618

The court found that applicant's discovery of the optimum ratio of tank volume to contactor area for a wastewater treatment device was not obvious. The reference taught the basic structure of the wastewater device and mentions that the efficiency "could be increased to 95% by increasing the area of the contactor" but does not mention tank volume. The reference did not show the functionality of tank volume to contactor area and did not reveal the property applicant discovered. According to the court the "Parameter optimized was not recognized to be a result-effective variable".

In re Gary E. Geiger 815 F.2d 686

The court ruled that the invention was not obvious in view of a combination of references. The claimed invention requires three components. Each of the components is conventionally employed in the references but all three are not employed in any one reference. In its reasoning, the court stated that: "Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination."

In this case, there is no teaching to make the selection of cast in heaters and accordingly, the claims should be allowed. As Mr. Littlejohn has pointed out, cast in heaters are an expensive alternative to conventional heaters and would therefore not be selected by one of skill in the art.

Furthermore, it is again pointed out that the claimed cast-in heater equipped reciprocating die set of this application is over 80 times more reliable than a conventional, ring-heater equipped die set (575/7, see below). That is an increase in reliability of over eight thousand percent (8000%). Note the *Littlejohn* Declaration, ¶ 9.

Thus, the evidence presented in paragraphs 6 through 9 of the *Littlejohn* Declaration establishes both superior results and that those results were unexpected:

6. That he understands from Counsel that a *Declaration of Dana Markwell* previously submitted in this application states on page 4 that 7 failures were experienced with 100 cast-in heaters in pressware die sets over a one-year period (a 7% failure rate per year) versus 345 failures over a one-year period with 60 conventional ring heaters (a 575% per annum failure rate) experienced with conventional heaters, which thus had an average useful life of about two (2) months.
7. That his personal experience with cast-in heaters is consistent with that reported by Dana Markwell. He is aware of instances where cast-in heaters have lasted over four (4) years of operation in a pressware die set, whereas conventional ring heaters are typically replaced in less than a year. That the longevity of the cast-in heaters in a pressware die set has provided incentive to further invest in the technology since the *Markwell Declaration* was submitted in this application in 2002.
8. That despite their cost of over three hundred dollars (\$300.00) apiece, Georgia-Pacific Corporation, Dixie Division, has already installed over seven hundred (700+) cast-in heaters and is planning on installing five hundred (500) more in 2004. In addition, all new paperboard pressware forming tools being commissioned by Georgia-Pacific include cast-in heaters in the die set.
9. That the commercial success of the Present Invention is due in large measure to the remarkable and unexpected reliability for the cast-in heaters noted above. A typical commercial press may have five or six die sets each having at least two heaters in a single die set. A failure of one heater in one die set is enough to cause shutdown of the entire press.

The law is believed quite clear when evidence such as the above is presented – this case should be allowed. *In re Soni*, 34 USPQ2d 1684, 1687 (CAFC 1995) is *apropos*:

In our view, however, when an applicant demonstrates substantially improved results, as Soni did here, and states that the results were unexpected, this should suffice to establish unexpected results in the absence of evidence to the contrary. Soni, who owed the PTO a duty of candor, made such a showing here. The PTO has not provided any persuasive basis to question Soni's comparative data and assertion that the demonstrated results were unexpected. Thus, we are persuaded that the Board's finding that Soni did not establish unexpected results is clearly erroneous.

It is difficult to imagine a more compelling case of unexpected and superior results than presented here – almost 2 orders of magnitude improvement with heater technology the art teaches as equivalent.

All claims are allowable for the reasons noted above.

Respectfully submitted,



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